

Hazard Review and Work Authorization for NEWNET Instrumentation Repair and Maintenance

Purpose This Meteorology and Air Quality Group (MAQ) hazard review (HR) describes the work performed to maintain, calibrate, repair, and store instruments and equipment for the NEWNET project.

Scope This HR applies to the NEWNET stations at various field locations around LANL and northern New Mexico.

History of revision This table lists the revision history and effective dates of this Hazard Review.

Revision	Date	Description Of Changes
0	10/23/00	New document issued as Hazard Control Plan.
1		HCP revised.
2	11/20/00	HCP revised.
3	11/19/01	HCP revised.
4	12/3/03	HCP revised.
5	12/14/04	Revised into HR format to replace HCP.

Signatures

Prepared by: _____ Dan Young, MAQ	Date: <u>11/15/04</u>	Approved by: _____ Mike McNaughton, Project Leader, MAQ	Date: <u>11/15/04</u>
Approved by: _____ Terry Morgan, QA Officer	Date: <u>11/10/04</u>	Work authorized by: _____ Jean Dewart, MAQ Group Leader	Date: <u>11/15/04</u>

12/16/04

CONTROLLED DOCUMENT

This copy is uncontrolled if no red stamp is present on printed copies.
Users are responsible for ensuring they work to the latest approved revision.

Activity Description/Overview

Work tasks/Steps	Hazards, Concerns, and Potential accidents; Likelihood/ Severity	Controls, Preventive Measures (e.g., safety equipment, administrative controls, etc.)	Hazard Level from IMP 300-00-00 Hazard Grading Matrix
Install components on towers using hand tools (screw drivers, wrenches, knives, pliers & wire cutters, etc.).	Cuts, scrapes, bruises (Occasional / negligible = minimal)	Ensure that hand tools are in good condition and are proper for the application. Wear safety shoes and safety glasses when using the sledge to drive stakes.	Low
Install or modify components on towers using hand power tools (drill motors, saber saw, Sawzall, soldering irons, etc.).	Cuts, scrapes, bruises, lacerations (Occasional / moderate = low)	As with hand tools, ensure that power tools are in good condition and are proper for the application. Wear safety glasses.	Low
Lift heavy equipment, batteries, etc.	Strains, back injuries (Occasional / moderate = low)	Use proper lifting techniques. Attend PS-13 class on back care and lifting. Wear safety shoes when carrying heavy equipment like batteries.	Low
Use compressed air from canned air to clean out components and equipment.	Eye or ear injuries from blowing debris or improper use of nozzle (Improbable / moderate = minimal)	The required nozzle ends have been installed (that can minimize injury if used improperly). When using compressed air to dust equipment, wear safety glasses. Never shoot the air at yourself or another person.	Low

Work tasks/Steps	Hazards, Concerns, and Potential accidents; Likelihood/ Severity	Controls, Preventive Measures (e.g., safety equipment, administrative controls, etc.)	Hazard Level from IMP 300-00-00 Hazard Grading Matrix
Transport and move batteries	Acid burns from spilled battery gel, arcing from shorting. (Occasional / moderate = low)	Always wear safety shoes (or removable toe guards) when carrying the heavy automotive-type batteries. Do not package batteries with any other materials. Individual batteries will be boxed in a secure manner so that the batteries do not shift or tip during transport. The gel electrolyte will not run but may still be a hazard if touched if the battery case is broken. Label each outer box "This Side Up" with an arrow indicating the top. The 300V "button cells" contain current-limiting devices. Disconnect all power when performing station maintenance. Be careful not to short the battery terminals against metal cases or with tools. Use plastic caps on the 12V batteries to prevent accidental shorts.	Low
Lower station towers	Dropping booms can cause serious injury. (Occasional / moderate = Low)	Tower lowering: two people are required to perform any lowering of station towers. Some stations have towers that pivot down relatively easily; others have towers that must be "walked" up and down. Use caution and be aware of your footing and the tower's position at all times. Unless absolutely necessary when actually handling the tower, avoid standing directly under the tower when lowering and raising.	Low

Work tasks/Steps	Hazards, Concerns, and Potential accidents; Likelihood/ Severity	Controls, Preventive Measures (e.g., safety equipment, administrative controls, etc.)	Hazard Level from IMP 300-00-00 Hazard Grading Matrix
Use spray paint to label equipment and supplies.	Paint is a hazardous material and getting in eyes or on skin can cause injuries (Improbable / moderate = minimal)	Wear safety glasses. Latex (or equivalent) gloves are recommended. Spray in a well-ventilated area only. Store paint cans in flammables storage cabinet. Dispose of empty cans as waste (in 90-d storage area).	Low

Prerequisites In addition to training to this HR, the following training is required before performing work in this HR:

- RRES-ES-Field, "General Field Safety for All Employees"
- RRES-ES-Driving, "Driving and Towing Safety For All Employees"
- Take PS-13 course on back care

Wastes or residual materials resulting from process

Used lead-acid and Ni-Cd batteries are recycled and thus not considered disposable waste. Empty spray cans are RCRA waste by LANL). Lithium cell batteries are disposed in designated sealable waste containers and are properly disposed of by group waste coordinators.

Emergency actions

Perform first aid as appropriate, see HSR-2 for medical attention. Notify supervisor and group leader as soon as possible.

[Click here to record "self-study" training to this HR.](#)

NOTE: Training to this document, as recorded in the EDS system, constitutes authorization to perform the work.